

REMARKS

The September 1, 2011 Office Action has been carefully reviewed and considered.

Applicant notes with appreciation that claim 1 is indicated as containing allowable subject matter. However, claims 14, 17-21, and 23 stand rejected under 35 U.S.C § 112, first paragraph and all pending claims stand rejected under 35 U.S.C § 112, second paragraph. Further, claims 14, 23, and 24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,744,007 (Watari). In addition, although not formally rejected under any section of 35 U.S.C. § 102, the Examiner indicates European Patent No. 1083599 (Fromme) anticipates claims 23 and 24. For the reasons described below, Applicant respectfully submits that all pending claims are now in condition for immediate allowance.

§ 112, 1st Paragraph Rejections

The Examiner alleges that the limitation in claim 14 reciting a plurality of connecting elements contacting opposing walls of two adjacent substrate regions is not supported in the specification. The Examiner also takes issue with the similar limitation required by claim 23. In response, claims 14 and 23 have been amended to recite that each elastic connecting element contacts the opposing side walls of adjacent substrate elements. Support for this amendment is found throughout the specification and drawings, see, e.g., ¶ [0035] and Fig. 1. In light of these amendments, Applicant requests withdrawal of the corresponding §112 rejections.

In addition, the Examiner alleges that the limitation in claim 23 requiring that the "connecting regions [be]...arranged *directly* on the flat surface of the heat sink between adjacent ones of the substrates" is not supported in the specification because the specification describes applying a paste *between* the module and the heat sink. Action, p. 5. Accordingly, Applicant has amended claim 23 to delete the term "directly" therefrom. In light of these amendments, Applicant requests withdrawal of the corresponding §112 rejection.

§ 112, 2nd Paragraph Rejections

All pending claims stand rejected under § 112, second paragraph, as being unclear. In particular, the Examiner states that the limitation requiring that the thickness of the module is reduced between adjacent substrates "is an inaccurate description of the disclosed invention..." The Examiner suggests deleting this limitation from the claims. Although Applicant disagrees with the Examiner's assessment of this limitation, Applicant canceled this limitation from the claims because it is believed that the other claim limitations clearly define over the previously cited art. In light of these amendments, Applicant requests withdrawal of the corresponding §112 rejections.

§ 102 Rejections

Claims 14, 23 and 24 stand rejected under § 102(b) as being anticipated by U.S. Patent No. 4,744,007 (Watari). For the reasons set forth below, Applicant submits that claims 14, 23, and 24 define patentable subject matter over Watari.

Claim 14 requires that "each elastic connecting element directly contact[s] opposing side walls of two adjacent substrate elements..." Similarly, claim 23 requires "each elastic connecting region [is] in direct contact with adjacent ones of the substrates..." In order to meet these claim limitations, a reference must show a *single* connecting element that contacts *two adjacent substrates*. In rejecting claims 14 and 23, the Examiner cites Watari's chip carrier cover 33 as being the claimed connecting element. Action, p. 6, 7. However, as shown in Watari's Fig. 1, reproduced below, a *single* cover 33 does not contact opposing sides of *two adjacent substrates*. Rather, a single cover 33 only contacts a single individual substrate 31. For at least this reason, claims 14 and 23 are not anticipated by Watari.

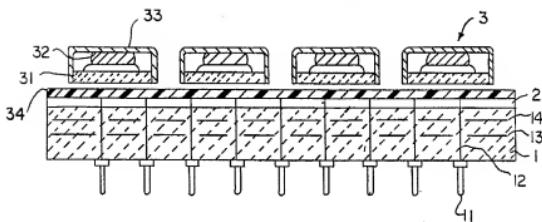


FIG. I

Claims 14 and 23 also require that the "connecting elements are designed to prevent a deformation of one substrate region to continue to an adjacent substrate region." In rejecting these claims, the Examiner alleges that Watari's alleged connecting elements (sidewalls of housing 33) meet this limitation. Action, p. 6 and 7. Applicant disagrees. As shown in Watari's Fig. I above, a single and discrete housing element 33 is connected to a single substrate. A single housing element 33 is not in any way connected to the multiple substrates and thus, cannot prevent deformation of multiple substrates. For at least this additional reason, claims 14 and 23 are not anticipated by Watari.

In addition, claim 14 requires that the "housing enclos[e] said plurality of substrate elements." Likewise, claim 24 requires the "housing enclos[e] said substrate regions..." In rejecting claims 14 and 24, the Examiner alleges that Watari's "collection of discrete 33s" is a single "housing," as required by the claim. Action, p. 6. This interpretation of Watari is improper. The independent and discrete covers 33 in Watari do not form a *single housing* enclosing a *plurality of substrate elements*, as claimed. Rather, Watari discloses a *multitude of housings* (covers 33), each enclosing a *single substrate element*. For at least this additional reason, claims 14 and 24 are not anticipated by Watari.

Claim 24 also requires that the connecting region function as an articulated hinge. The Examiner finds that the claimed articulated hinge element does not structurally distinguish the claimed apparatus from the Watari. Although Applicant disagrees with the Examiner's finding, Applicant has further amended claim 24 to clarify that the "connecting region has a higher mechanical deformability than the substrate regions..." Support for this amendment is found at least in paragraph [0017] of the published application. Nothing in Watari indicates that the alleged connecting regions (covers 33) have a higher mechanical deformability than the substrate regions. Accordingly, for this additional reason, claim 24 is not anticipated by Watari.

With regard to claims 14, 23, and 24, the Examiner states that the limitation requiring a "plastic injection-molded housing" does not structurally distinguish the claimed invention, citing MPEP § 2113. Action, p. 6 and 7. Although Applicant disagrees with the Examiner's assessment of this limitation, Applicant canceled "injection-molded" from the claims because it is believed that the other claim limitations clearly define over the previously cited art. Thus, these claims now only require a "plastic housing." The term "plastic housing" is not a process limitation but rather describes specific structural features of the invention. Watari has not been shown to teach a plastic housing and thus, for this additional reason, claims 14, 23, and 24 not anticipated by Watari.

Fromme

Although not expressly rejected under any subsection of 35 U.S.C. §102, the Examiner indicates that claims 23 and 24 are anticipated by European Patent No. 1083599 (Fromme). However, as described above, claim 23 has been amended to require that each connecting region be in direct contact with adjacent substrates. The Examiner admits that the corresponding limitation found in claims 1 and 14 is not described in Fromme. Action, p. 9. Further, there is no evidence that Fromme discloses a "connecting region" that "extend[s] from

an exterior of the housing and [is] arranged between adjacent substrate regions" and "has a higher mechanical deformability than the substrate regions," as required by claim 24. If the Examiner continues to assert that Fromme teaches these limitations, Applicant respectfully requests that the Examiner point to specific teachings in Fromme to support the assertion. For at least the above reasons, claims 23 and 24 define patentable subject matter over Fromme.

In view of the remarks made herein, Applicant respectfully submits that the present application is in condition for immediate allowance. Action to such effect is respectfully requested.

Respectfully submitted,
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